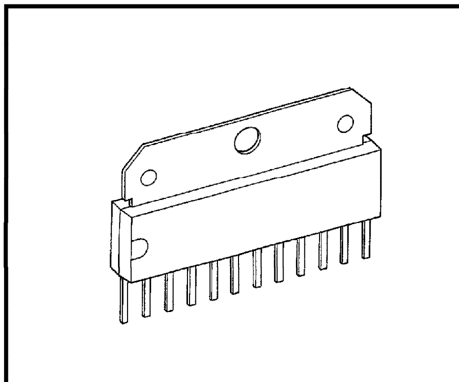
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA8445K

POWER AMPLIFIER FOR DRIVING A DEFLECTION CIRCUIT OF. A COLOR TELEVISION

The TA8445K is a power amplifier for driving a deflection circuit of a middle and large screen size color television. The TA8445K combines the vertical output circuit and the Ramp-generator in a 12-pin shrink DIP plastic package. The TA8445K requires only vertical deflection positive pulse for vertical operation.



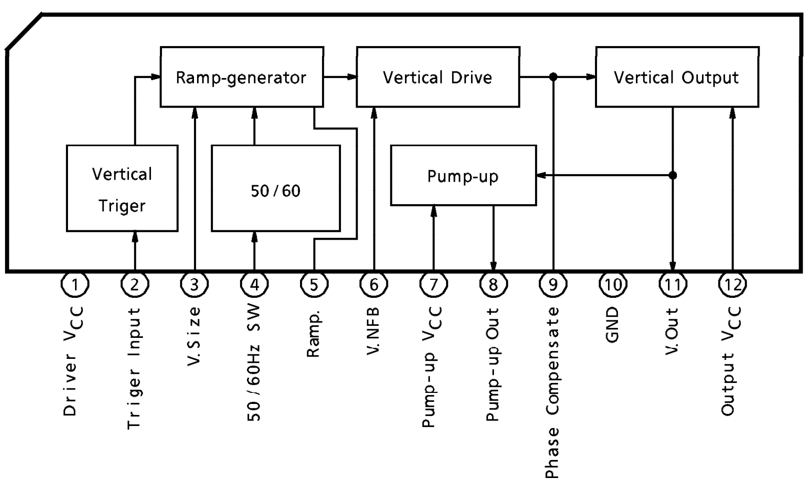
HSIP12-P-2.54A

Weight : 3.2g (Typ.)

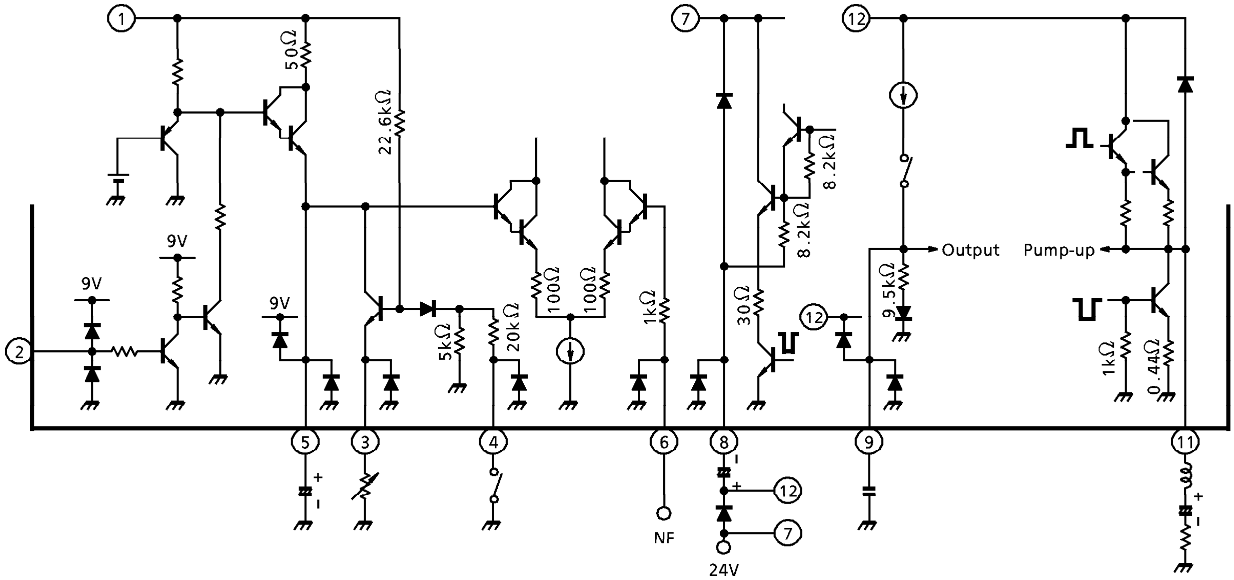
FEATURES

- Large output current : $2.2A_{p\text{-}p}$ (MAX.)
- Built-in Ramp-generator circuit
- Built-in V.Driver circuit
- 50 / 60Hz sw circuit
- Small power dissipation with a pump-up circuit
- Vertical output circuit
- Small number external parts

BLOCK DIAGRAM



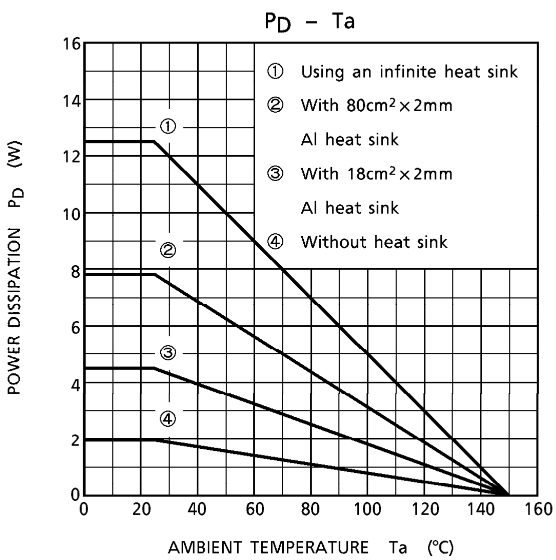
TERMINAL INTERFACE



MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
V.Driver Power Supply	V_{CC}	15	V
Pump-up Power Supply Voltage	V_{CC}	30	V
Vertical Output Supply Voltage	V_{CC}	60	V
Power Dissipation	$P_{D\ max}$	12.5 (Note)	W
Operating Temperature	T_{opr}	−20~85	°C
Storage Temperature	T_{stg}	−55~150	°C

(Note) Using an infinite heat sink.



RECOMMENDED OPERATING CONDITION (Ta = 25°C)

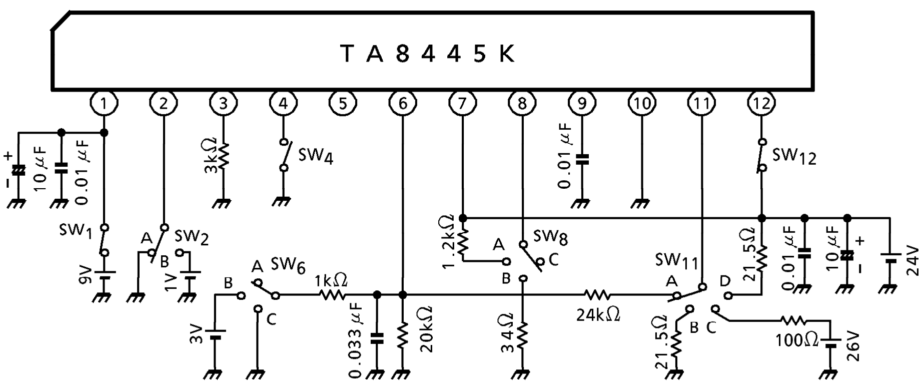
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT
V.Driver Supply Voltage	V_{CC1}	8.1	9.0	9.9	V
Pump-up Supply Voltage	V_{CC2}	—	24	29	V
Deflection Output Current	I_{11p-p}	—	—	2.2	A_{p-p}

ELECTRICAL CHARACTERISTICS (Ta = 25°C, V_{CC1} = 9V, V_{CC2} = 24V)

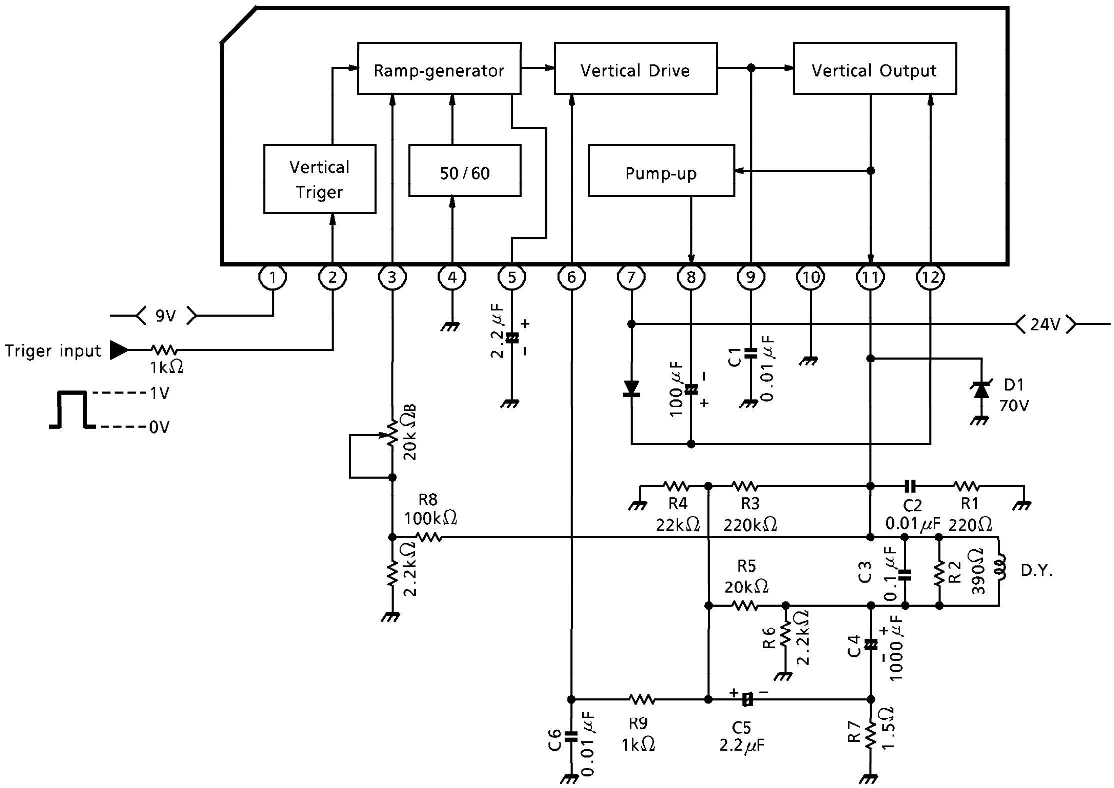
CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
V.Driver Supply Current	I_{CC1}	—	1	2.0	5.0	12	mA
Vertical Triger Threshold Voltage	V_2	—	2	—	—	1.0	V
Vertical Amplitude Cont. Voltage (1)	V_3^{60}	—	3	1.0	1.5	2.0	V
Vertical Amplitude Cont. Voltage (2)	V_3^{50}	—	11	0.75	1.25	1.75	V
Ramp-signal Maximum Voltage	V_5	—	4	3.5	4.8	6.0	V
Ramp-signal Maximum Amplitude	V_{5p-p}	—	4	3.5	4.5	5.5	V_{p-p}
Output Triger Satulation Voltage (1)	V_{S11-10}	—	5	0.3	0.5	1.0	V
Output Triger Satulation Voltage (2)	V_{S12-11}	—	6	1.0	1.8	3.6	V
Pump-up Triger Satulation Voltage (1)	V_{S7-8}	—	7	1.0	2.0	3.0	V
Pump-up Triger Satulation Voltage (2)	V_{S8-10}	—	8	0.2	0.8	1.6	V
Idling Current	I_b	—	9	—	26	—	mA
Vertical Output Center Voltage	V_{CENTER}	—	10	8.0	12.0	14.0	V

NOTE	SW MODE							TEST TERMINAL
	1	2	4	6	8	11	12	
1	ON	A	OFF	A	C	A	ON	1
2	ON	B	OFF	A	C	A	ON	5
3	ON	A	OFF	A	C	A	ON	3
4	ON	A	OFF	A	C	A	ON	5
5	ON	B	OFF	B	C	D	ON	11
6	OFF	A	OFF	C	C	B	ON	11 – 12
7	OFF	A	OFF	A	B	C	OFF	7 – 8
8	OFF	A	OFF	A	A	A	OFF	8
9	ON	A	OFF	A	C	A	ON	12
10	ON	A	OFF	A	C	A	ON	11
11	ON	A	ON	A	C	A	ON	3

TEST CIRCUIT



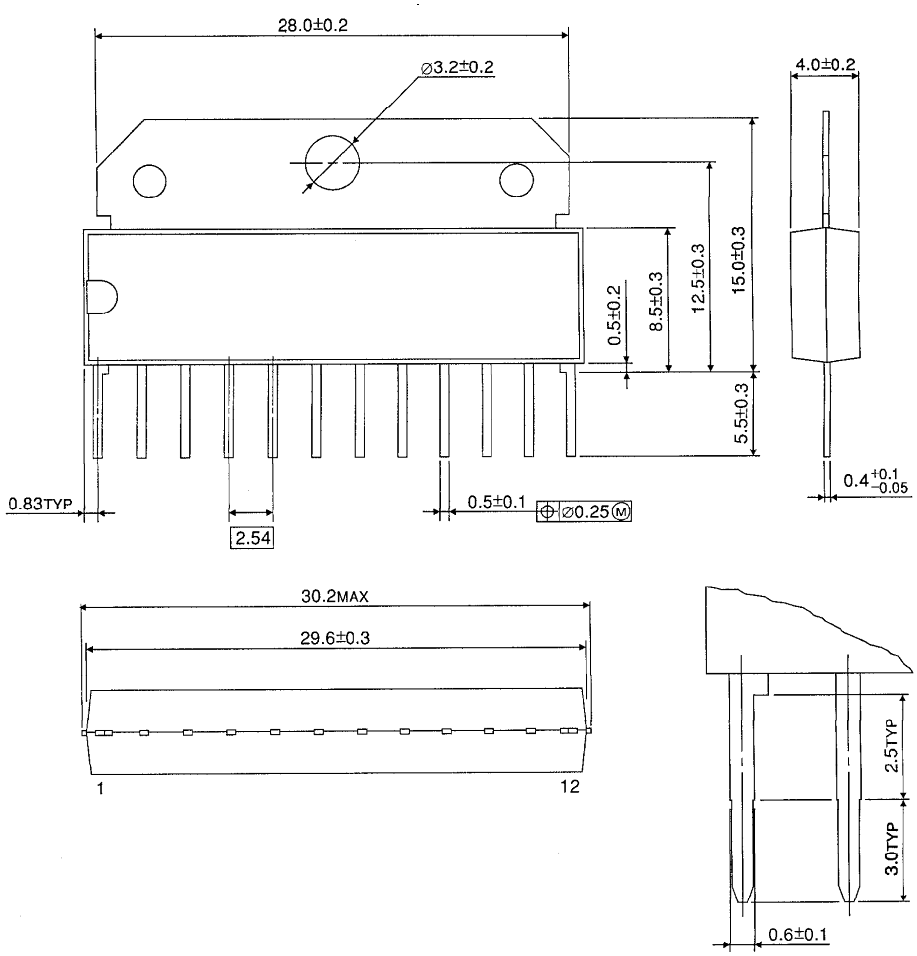
APPLICATION CIRCUIT



OUTLINE DRAWING

HSIP12-P-2.54A

Unit : mm



Weight : 3.2g (Typ.)